Amendments to the Claims

Please cancel claims 1-8 without prejudice. Please add new claims 9-28 as shown below in the List of Claims.

List of Claims

1-8. Cancelled.

1 ~~9.~~ (New) A process for obtaining a purified gas by removing polysulfanes from crude gas formed during the production of hydrogen sulfide, comprising:

a) passing said crude gas through a wash system where said crude gas is brought into contact with a wash solution comprising water or methanol; and

b) collecting said purified gas from the wash solution of step a).

2 ~~10.~~ (New) The process of claim 1, wherein said crude gas comprises greater than 80% by volume of H_2S and 100-2000 vpm of polysulfanes of the formula H_2S_n, wherein n = 2-8.

3 ~~11.~~ (New) The process of claim 2, wherein said polysulfanes are present in said crude gas at 400-1500 vpm.

4 ~~12.~~ (New) The process of claim 1, wherein said wash system is a jet washer.

5 ~~13.~~ (New) The process of claim 1, further comprising a second wash step in which the purified gas produced in step a) is passed through a counter-current washer comprising an aqueous or methanolic solution.

6 ~~14.~~ (New) The process of claim 1, further comprising a second wash step in which the purified gas produced in step a) is passed through an adsorber bed.

7 ~~15.~~ (New) The process of claim 1, wherein relative to said crude gas, the polysulfanes in said purified gas have been reduced by 50-99.5%.

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8 16. (New) The process of claim 9, wherein said process is carried out at a temperature of 0-150°C.

9 17. (New) A process for obtaining a purified gas by removing polysulfanes from crude gas formed during the production of hydrogen sulfide, comprising:

a) passing said crude gas through a wash system comprising an aqueous or methanolic solution containing 0.5-20 wt% of an alkali or alkaline earth hydroxide or oxide; and

b) collecting said purified gas from the aqueous or methanolic solution of step a).

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10 18. (New) The process of claim 17, wherein said crude gas comprises greater than 80% by volume of H_2S and 100-2000 vpm of polysulfanes of the formula H_2S_n, wherein n = 2-8.

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11 19. (New) The process of claim 18, wherein said polysulfanes are present in said crude gas at 400-1500 vpm.

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12 20. (New) The process of claim 17, wherein relative to said crude gas, the polysulfanes in said purified gas have been reduced by 50-99.5%.

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13 21. (New) The process of claim 17, wherein said wash system is a jet washer and said process further comprises a second wash step in which the purified gas of step a) is passed through either: a counter-current washer comprising an aqueous or methanolic solution; or an adsorber bed.

14 22. (New) A process for obtaining a purified gas by removing polysulfanes from crude gas formed during the production of hydrogen sulfide, comprising:

a) passing said crude gas through a wash system comprising an aqueous or methanolic solution containing 1-20 wt% of a compound selected from the group consisting of:

i) an organic amine of the formula $(C_nH_{2n+1})_xNH_y$, where n = 1-3, x = 2 or 3, and y = 0 or 1;

ii) an amino alcohol of formula $(C_nH_{2n+1}O)_xNH_y$, where n = 1-3, x = 2 or 3, and y = 0 or 1; and

iii) ammonia;

b) collecting said purified gas from the aqueous or methanolic solution of step a).

15 ~~23~~. (New) The process of claim ~~22~~ 14, wherein said compound is an organic amine of the formula $(C_nH_{2n+1})_xNH_y$, where n = 1-3, x = 2 or 3, and y = 0 or 1.

16 ~~24~~. (New) The process of claim ~~22~~ 14, wherein said compound is an amino alcohol of formula $(C_nH_{2n+1}O)_xNH_y$, where n = 1-3, x = 2 or 3, and y = 0 or 1.

17 ~~25~~. (New) The process of claim ~~22~~ 14, wherein said compound is ammonia.

18 ~~26~~. (New) The process of claim ~~22~~ 14, wherein said crude gas comprises greater than 80% by volume of H_2S and 100-2,000 vpm of polysulfanes of H_2S_n, where n = 2-8.

19 ~~27~~. (New) The process of claim ~~22~~ 14, wherein relative to said crude gas, the polysulfanes in said purified gas have been reduced by 50-99.5%

20 ~~28~~. (New) The process of claim ~~22~~ 14, wherein said wash system is a jet washer and said process further comprises a second wash step in which the purified gas of step a) is passed through either: a counter-current washer comprising an aqueous or methanolic solution; or an adsorber bed.